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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/595,013	06/16/2000	Thomas Marshall Eubanks	A007699	9819

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EXAMINER	
TRAN, LAMBERT L	

ART UNIT	PAPER NUMBER
2144	6

DATE MAILED: 12/17/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/595,013	EUBANKS, THOMAS MARSHALL	
	Examiner	Art Unit	
	Lambert L. Tran	2142	

-- The MAILING DATE of this communication appears on th cover sh et with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 June 2000*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-53* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-53* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *16 June 2000* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

1. This Action is in response to the application filed on 16 June 2000.

2. Claims 1-53, presented for examination, are pending.

3. Applicant preliminary amendment (paper #5) received, and is considered in this Office Action.

Priority

4. No claim for priority has been made in this application.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-3, 6, 8-12, 22, 35, 43 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

7. Claim 1 recites the limitation "said at least one" in page 25, line 8. There is insufficient antecedent basis for this limitation in the claim. Claims 2-3 are dependent of claim 1.

8. Claim 6 recites the limitation "said source" in page 27, line 3. There is insufficient antecedent basis for this limitation in the claim.

9. Claim 8 recites the limitation "said first router" in page 28, line 2, and "said second router" in page 28, line 3. There is insufficient antecedent basis for this limitation in the claim. Claims 10-11 are dependent of claim 8.

10. Claim 9 recites the limitation "said first and second routers" in page 28, line 5. There is insufficient antecedent basis for this limitation in the claim.

11. Claim 12 recites the limitation "said first router" in page 28, line 20, and "said second router" in page 28, line 21. There is insufficient antecedent basis for this limitation in the claim.

12. In regard to claims 22, 35, 43, the term "desired quality" is a relative term which renders the claim indefinite. The term "desired quality" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

14. Claims 1-3, as understood, 4-5, 6, as understood, 7, 8-12, as understood, 13-21, 22, as understood, 23-34, 35, as understood, 36-42, 43, as understood, and 44-53, are rejected under 35 U.S.C. 103(a) as being unpatentable over Kshirsagar et al., U.S. Patent No 6,516,000, hereinafter referred to as Kshirsagar, in view of McCanne, U.S. Patent No 6,611,872.

15. In regard to claims 1, 7, Kshirsagar disclosed the invention directed to a communications system that combines the address resolution and the connection setup function in a third-party connection control [see Kshirsagar, col. 3, lines 20-24]. However, Kshirsagar did not expressly disclose the computer network as Internet service providers. In the same field of multicast communication and routing [see McCanne, ABSTRACT], McCanne disclosed a method for delivering multicast communication across Internet service provider [see McCanne, col. 3, lines 49-53]. An ordinary artisan in the art at the same time the invention was made, would have been motivated to look to a way to enable quick connection setup procedure and reduce or eliminate the need for endpoints (subscribers) signaling software [see Kshirsagar, col. 3, lines 25-26].

16. Accordingly, it would have been obvious to one of ordinary skill in the network and data communication art at the time the invention was made to have incorporated Kshirsagar's teachings of using connection setup function in a third-party connection control with the teachings of McCanne of delivering multicast communication across Internet service providers, for the purpose of providing a system that is effectively managed according to traffic policies defined locally at each network access points [see McCanne, col. 2, lines 58-59]. Effectively, the combination inventions of Kshirsagar and McCanne taught:

A method of delivering (transporting) *data on an Internet to a plurality of receivers, said receivers comprising first subscribers* (end point) *of a first independent internet service provider* (connection-oriented network) *and second subscribers of a second independent internet service provider, said first and second independent Internet service providers being capable of providing multicast service to said first and second subscribers, respectively, said method comprising:*

delivering said data to said first Internet service provider, said first Internet service provider multicasting said data, thereby making said information available to said at least one of said first subscribers [see Kshirsagar ABSTRACT, col. 7, lines 24-26, and figure 2, end points 212 and 213, see McCanne, col. 3, lines 58-61]; *and*

delivering said data to said second Internet service provider, said second Internet service provider multicasting said data, thereby making said information available to said at least one of said second subscribers [see Kshirsagar ABSTRACT, col. 7, lines 24-26, and figure 2, end points 232 and 233, see McCanne, col. 3, lines 58-61].

17. For the rationale set forth above, claims 1, 7 are rejected.

18. In regard to claim 2, Kshirsagar disclosed:

transmitting information to at least one of said first subscribers and at least one of said second subscribers [see Kshirsagar, ABSTRACT and figure 2].

19. In regard to claims 3, 23, 31, 39, 47, 52, Kshirsagar-McCanne disclosed:

information comprises at least one of audio and video data (shared media) [see Kshirsagar, col. 7, lines 59-61, see McCanne, col. 3, lines 11-13].

20. In regard to claims 4-5, the combination inventions Kshirsagar and McCanne disclosed:

A method for joining a multicast transmission on an Internet, said transmissions being multicasted to first subscribers of a first independent Internet service provider and to second subscribers of a second independent Internet service provider, wherein said first and second independent Internet service providers are capable of providing multicast service to said first and second subscribers, respectively, said method comprising:

sending a join request (signaling the presence to attached routers) *to said first independent Internet service provider, and making said multicast transmission available to at least one of said first subscribers in accordance with said join request* [see McCanne, col. 10, lines 45-48, and lines 60-62, see Kshirsagar, figure 2]; or

sending a join request to said second independent Internet service provider, and making said multicast transmission available to at least one of said second subscribers in accordance with said join request [see McCanne, col. 10, lines 45-48, and lines 60-62, see Kshirsagar, figure 2].

21. In regard to claim 6, the combination inventions Kshirsagar and McCanne disclosed:

receiving said join request at a first router of said first independent Internet service provider [see McCanne, col. 12, lines 55-57, see Kshirsagar, figure 2];

transmitting said join request to a second router, which receives information from said first router and from a third router (router C), *if said first router is not receiving said multicast transmission* [see McCanne , col. 13, lines 5-17, see Kshirsagar, figure 2];

establishing said multicast transmission on said first router if said second router is receiving said multicast transmission; and joining said multicast transmission on said first router [see McCanne , col. 13, lines 5-17, see Kshirsagar figure 2].

22. In regard to claims 8, 12, the combination inventions Kshirsagar and McCanne disclosed: *trusted third party sends unicast messages indicative of said multicast transmission to each of said first and second independent internet service providers* [see McCanne, col. 12, lines 27-32, see Kshirsagar, figure 2].

23. In regard to claims 9-11, McCanne disclosed:

at least one of said first and second routers is a border router [see McCanne, col. 5, lines 57-60].

multicast transmission is delivered to a router which receives information from, and/or delivers information to, said at least one of said subscribers [see McCanne, col. 5, lines 32-37].

unicast messages indicative of said multicast transmission are individually tailored based on the routing requirements of respective ones of said first and second independent internet service providers [see McCanne, col. 7, lines 24-25].

24. In regard to claim 13, McCanne disclosed:

multicast transmission to at least one of said subscribers is in response only to said action performed by said at least one of said subscribers [see McCanne, col. 23, lines 60-62].

25. In regard to claim 14, McCanne disclosed:

a plurality of separate channels, each of said separate channels carrying a separate stream of information [see McCanne, col. 12, lines 19-26].

26. In regard to claim 15, McCanne disclosed:

sub-channel and a second sub-channel, said first sub-channels carrying a first copy of said separate stream of information and said second sub-channels carrying a second copy of said separate stream of information [see McCanne, col. 12, lines 19-26, col. 14, lines 21-31].

27. In regard to claims 16-17, 30, 38, 46, 51, McCanne disclosed:

multicast group comprising a plurality of multicast sources; each of said multicast groups corresponding to each of said plurality of said separate channels, and each of said multicast groups comprising a multicast source; Internet [see McCanne, col. 14, lines 32-49, col. 2, lines 45-46].

28. In regard to claims 18, 20-21, and 22, as understood, 24-29, 33-37, 41-45, 49-50, McCanne disclosed:

transmitting said first copy of said separate stream of information sources on said first sub-channel at a first time, and transmitting said second copy of said separate stream of information on said second sub-channel at a second time, wherein said first time is not equal to said second time (traffic shaping stage) [see McCanne, col. 15, lines 32-35]; *transmitted at lower rate than a rate of transmission; transmitted at a lower "quality" than a quality of transmission; transmitted at a desired "quality"; lower rate; lower quality;* (bandwidth management framework) [see McCanne, col. 16, lines 5-27]; *transmitting MP3* (audio), *ASCII text* (data) (plug-in framework) [see McCanne, col. 15, lines 56-64].

29. In regard to claims 19, 32, 40, 48, 53, McCanne disclosed: *any corrupt or missing data in one of said first copy and said second copy of said separate stream of information is replaced by a corresponding uncorrupted data from another of said first copy and said second copy of said separate stream of information* (error condition feedback) [see McCanne, col. 11, lines 41-47].

30. Since all the claims limitations are disclosed by the combination inventions of Kshirsagar and McCanne, claims 1-53 are rejected.

Conclusion

31. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. Grossglauser et al., U.S. Patent No 6,353,596, disclosed system and method for multipoint-to-multipoint multicasting.

b. Dondeti et al., U.S. Patent No 6,240,188, disclosed distributed group key management scheme for secure many-to-many communication.

c. Giese, U.S. Patent No 6,621,895, disclosed enhanced communication services for data networks.

d. Yamaguchi et al., U.S. Patent No 6,636,481, disclosed data connecting method, data connecting apparatus, program recording medium.

e. Rekhter et al., U.S. Patent No 6,339,595, disclosed peer model support for virtual private networks with potentially overlapping addresses.

f. Clark et al., U.S. Patent No 6,442,588, disclosed method of administering a dynamic filtering firewall.

g. G. Huston, "Internet Service Provider Peering", Draft 1.0, PP 1-8, December 1994.

32. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lambert L. Tran whose telephone number is (703) 305-4663. The examiner can normally be reached on M-F at 9AM - 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack B. Harvey can be reached on (703) 305-9705. The fax phone number for the organization where this application or proceeding is assigned is (703) 746-7239.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-9700.

JACK B. HARVEY
SUPERVISORY PATENT EXAMINER

L.L.T
Assistant Examiner
GAU 2142
December 15, 2003